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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,222	10/22/2001	Gilbert Christopher Sih	000276	4976

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Qualcomm Incorporated  
Patents Department  
5775 Morehouse Drive  
San Diego, CA 92121-1714

EXAMINER

VUONG, QUOCHIE B

ART UNIT PAPER NUMBER

2685

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

WM

<b>Office Action Summary</b>	<b>Application No.</b> 09/986,222	<b>Applicant(s)</b> SIH ET AL.	
	<b>Examiner</b> Quochien B Vuong	<b>Art Unit</b> 2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>04/22/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 04/22/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Objections***

2. Claim 8 is objected to because they include reference characters (540) which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hyuk Jun Oh et al. ("An adaptive channel estimation scheme for DS-CDMA systems")

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VEHICLE TECHNOLOGY CONFERENCE, No.6, 24-28 September 2000, pages 2839-2843, XP010525099, Boston).

Regarding claims 1 and 9, Oh et al. disclose a method and system for improving the reception of a signal in a wireless communications device (WCD), comprising the steps of: (a) estimating the velocity of the WCD; and (b) adjusting a filter bandwidth in the WCD in response to the estimated velocity, to mitigate the introduction of noise and distortion to the signal (see abstract, sections 1 and 3, and figures 1 and 2).

As to claims 2 and 10, Oh et al. disclose step (b) comprises the steps of:

- (1) increasing the filter bandwidth as the estimated velocity increases; and
- (2) decreasing the filter bandwidth as the estimated velocity decreases (section 3).

As to claim 3, Oh et al. disclose steps (a) and (b) are performed at periodically-occurring time increments.

As to claims 4 and 11, Oh et al. disclose that it is well known for using level crossing rate for estimating the velocity of the WCD (section 1) even though Oh et al. use a different method for estimating the velocity of the WCD.

As to claims 5 and 12, Oh et al. disclose the signal is a pilot signal (see abstract).

As to claims 6 and 13, Oh et al. disclose the step (b) comprises the steps of: (1) providing a plurality of predetermined bandwidths, wherein each predetermined bandwidth corresponds to a particular velocity range; and (2) setting the filter bandwidth to one of the plurality of predetermined bandwidths that corresponds to the estimated velocity (see section 3).

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As to claim 7, Oh et al. disclose step (1) includes the step of providing a plurality of filter components, wherein each filter component has a corresponding bandwidth (see section 3).

As to claim 8, Oh et al. disclose step (1) includes the step of providing a lookup table that translates a velocity estimate into one or more filter parameters, wherein the one or more filter parameters determine the filter bandwidth (see section 3).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ling (US 5,329,547) discloses a method and apparatus for coherent communication in a spread spectrum communication system.

Atarius et al. (US 6,373,882) disclose motion estimation for a CDMA mobile station.

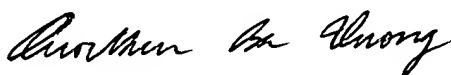
Jin (US 6,658,045) discloses CDMA communications system adaptive to mobile unit speed.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B Vuong whose telephone number is (703) 306-4530. The examiner can normally be reached on M-F 9:30-18:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (703) 305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**QUOCHIE B. VUONG**  
**PRIMARY EXAMINER**

Quochien B. Vuong

February 18, 2005.